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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,094	03/22/2004	Robert Tod Dimpsey	AUS920040059US1	3839

35525 7590 08/11/2006

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EXAMINER	
FLOURNOY, HORACE L	
ART UNIT	**PAPER NUMBER**
2189	

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/807,094	DIMPSEY ET AL.	
	Examiner	Art Unit	
	Horace L. Flournoy	2189	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5/31/2006, 4/25/2006, 3/27/2006, 6/30/05
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The instant application having Application No. **10/807,094** has a total of *28* claims pending in the application; there are *4* independent claims and *24* dependent claims, all of which are ready for examination by the examiner.

INFORMATION CONCERNING OATH/DECLARATION

Oath/Declaration

The applicant's oath/declaration has been reviewed by the examiner and is found to conform to the requirements prescribed in **37 C.F.R. 1.63**.

ACKNOWLEDGEMENT OF REFERENCES CITED BY APPLICANT

As required by **M.P.E.P.** 609(c), the applicant's submission of the Information Disclosure Statements dated **5/31/2006, 4/25/2006, 03/27/2006,** and **06/30/2005** are acknowledged by the examiner and the cited references have been considered in the examination of the claims now pending. As required by **M.P.E.P.** 609(c), a copy of the PTOL-1449 initialed and dated by the examiner is attached to the instant office action.

REJECTIONS NOT BASED ON PRIOR ART

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 26-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 26-28 are rejected under 35 U.S.C. 101 as not being directed to patent-eligible subject matter. In accordance with the current "**Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility**", the computer readable medium includes intangible elements such as communications links (as outlined on page 59 of the applicants specification).

REJECTIONS BASED ON PRIOR ART

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-28 are rejected under 35 U.S.C. 102(b) as being anticipated by **Witt et al. (U.S. Patent Number 5,751,981 hereafter referred to as Witt).**

With respect to **independent claim 1,**

"A method in a data processing system for generating coverage data during execution of code in the data processing system, **[Maxwell discloses in the abstract, lines 1-5,"A method and system for simulating the execution of a software program on a simulated hardware system. An instrumented software program is divided into program segments delineated by tags and is then analyzed for data describing the program segments."]** *the method comprising: responsive to executing an instruction in the code by a processor in the data processing system,* **[Maxwell discloses in column 2, lines 24-26, "A target program is compiled into object code, and the object code is downloaded into a processor memory model within the hardware simulator."]** *determining whether an access indicator is associated with the instruction;* **[See FIG. 1, element 24: "Assembly Analyzer", See "data accesses" and all associated text within specification]** *and if the access indicator is associated with the instruction, changing, by the processor, a state of the access indicator when the instruction is executed,* **[See FIG. 1, element 24: "Assembly Analyzer", See "data accesses" and all associated text within specification]** *wherein coverage data is generated during execution of the code*

by the processor." **[Maxwell discloses this limitation in the abstract, lines 21-24.]**

With respect to **independent claim 13,**

"A data processing system comprising: an instruction cache, **[See FIG. 2B, element 58, See all associated text within specification]** *wherein the instruction cache receives instructions and marks an instruction as executed in response to detecting a signal indicating that the instruction has been executed; and a processor unit,* **[Maxwell discloses in column 4, lines 6-10, "...the system further maintains an instruction cache image that keeps a record of the contents of an instruction cache of a simulated processor of the simulated hardware system. The system updates the instruction cache image after a program segment is executed."]** *wherein the processor unit generates the signal when the instruction has completed execution."* **[See FIG. 2B, element 50, See all associated text within specification]**

With respect to **independent claims 26 (and 17),**

"A computer program product in a computer readable medium for generating coverage data during execution of code in the data processing system, **[disclosed in column 1, lines 33-34, "software program"]** *the computer program product comprising: first instructions, responsive to executing an instruction in the code by a processor in the data processing system, for determining whether an access indicator* **[See FIG. 1, element 24: "Assembly Analyzer", See "data accesses" and all associated text within specification]**

is associated with the instruction; and second instructions, if the access indicator is associated with the instruction, for changing, by the processor, a state of the access indicator when the instruction is executed, **[Maxwell discloses in column 4, lines 6-10, "...the system further maintains an instruction cache image that keeps a record of the contents of an instruction cache of a simulated processor of the simulated hardware system. The system updates the instruction cache image after a program segment is executed."]** *wherein coverage data is generated during execution of the code by the processor."* **[Maxwell discloses this limitation in the abstract, lines 21-24.]**

With respect to **claims 2 and 18,**

"The method of claim 1, wherein the changing step comprises: receiving a signal at an instruction cache in the processor from a processor unit in the processor; **[Maxwell discloses in column 4, lines 6-10, "...the system further maintains an instruction cache image that keeps a record of the contents of an instruction cache of a simulated processor of the simulated hardware system. The system updates the instruction cache image after a program segment is executed."]** *and responsive to receiving the signal, changing the state of the access indicator by the instruction cache."* **[See FIG. 1, element 24: "Assembly Analyzer", See "data accesses" and all associated text within specification]**

With respect to **claims 3, 16, 19**

"The method of claim 2, wherein the processor unit is one of a completion buffer and a processor functional unit." **[Maxwell discloses in column 2, lines 21-23, "To achieve this degree of accuracy for a highly complex target processor, functions are often represented with detailed structures."]**

With respect to **claim 4,**

"The method of claim 1 further comprising: marking selected instructions in the code for generating the coverage data by associating access indicators with selected instructions in the code." **[See column 5, lines54-67]**

With respect to **claims 5, 21, 28**

"The method of claim 1, wherein instructions in the instruction cache are located in different positions within the instruction cache **[See FIG. 2B, elements 80, 58 and 52. Maxwell teaches instructions located in different positions of the instruction cache (elements 80, 58, and 52).]** *and wherein the signal includes an identification of a position in the instruction cache for the instruction."* **[See FIG. 2B, element 50 and all associated text within specification]**

With respect to **claim 6,**

"The method of claim 1, wherein the access indicator is located in a field in the instruction." **[See column 5, lines54-67]**

With respect to **claim 9,**

"The method of claim 1, wherein the access indicator is an instruction access indicator." **[See column 5, lines54-67]**

With respect to **claims 11, 24**

"The method of claim 1, wherein access indicators are associated with every instruction within the code." **[See column 5, lines54-67]**

With respect to **claims 14, 20, 22,**

"The data processing system of claim 13, wherein an instruction access indicator associated with the instruction is set to make the instruction as executed." **[See column 5, lines54-67]**

Allowable Subject Matter

Claims 7-8, 10, 12,15,23, 25 and 27, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

CONCLUSION

Status of Claims in the Application

The following is a summary of the treatment and status of all claims in the application as recommended by **M.P.E.P. 707.07(i):**

Claims rejected in the Application

Per the instant office action, claims **1-28** have received a first action on the merits and are subject of a first action non-final.

Direction of Future Correspondences

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Horace L. Flournoy whose telephone number is (571) 272-2705. The examiner can normally be reached on Monday through Friday 8:00 AM to 5:30 PM (ET).

Important Note

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Reginald G. Bragdon can be reached on (571) 272-4204. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 746-7239.

Information regarding the status of an Application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or PUBLIC PAIR. Status information for unpublished applications is available through Private Pair only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Horace L. Flournoy

Patent Examiner
Art unit: 2189

Reginald G. Bragdon

Supervisory Patent Examiner
Technology Center 2100